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# Local governments' risk-based approach to climate change adaptation: a missed opportunity for resilience in New South Wales

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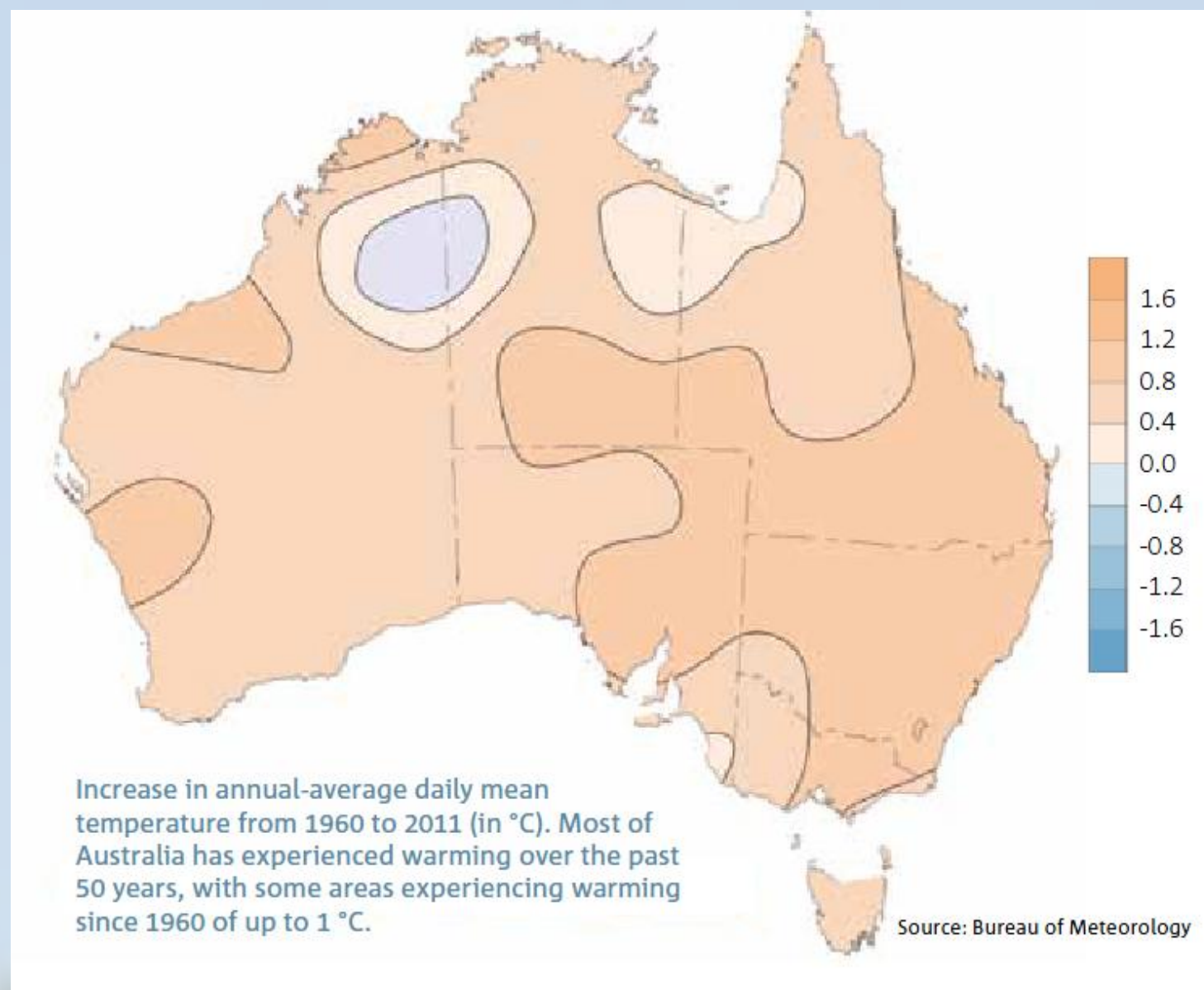
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# Local Governments' Risk-based Approach to Climate Change Adaptation: a Missed Opportunity for Resilience in New South Wales

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## Background

Most of NSW has experienced an increase in annual-average daily mean temperature of 0.8 degrees Celsius in the period 1960 to 2011, indicating that the impacts of climate change (CC) are already being felt.<sup>1</sup>



Immediate, effective adaptation to potential impacts is crucial in reducing vulnerability to CC. All three levels of government in Australia have a role in adaptation planning however it is local government that is at the 'coal face' of the outcomes of imminent climatic changes as the legislation for environmental planning instruments exists at this level of government.

However local councils are potentially the least equipped to affect appropriate adaptation methods and outcomes. Recently there have been increased roles and responsibilities as well as financial constraints on local governments in Australia.<sup>2</sup>

In terms of CC planning, councils have a legal responsibility to consider CC impacts in the planning decisions.<sup>3</sup> One of the purposes of the *Local Government Act 1993* is:

*to require councils, councillors and council employees to have regard to the principles of ecologically sustainable development in carrying out their responsibilities (S7)*

Importantly, cultural dimensions and constructs of CC shape the problematisation of climate change and thus our response to it<sup>4</sup>, including the response of institutions.

"That's part of a WASiP requirement... it's a major source of funding for sustainability programs... one of the requirements for our council is we've got to do a CC risk assessment this financial year, and next financial year we have to do a CC adaptation plan"

"Our main activity has been a coastal hazard risk assessment"

"Cc risk assessment ... it's all driven by state government policies"

Q: "Would you say everything you have done so far has been risk based rather than resilience oriented?"  
A: "yes, it's kind of what we do at council"

## Method

Interviews were conducted with staff and elected members (councillors) from NSW local governments to discuss any adaptation processes undertaken, and the success of the outcomes.

These interviews have been critically analysed by applying resilience and adaptive management theories.

"Resilience is the capacity of a system to absorb disturbance and reorganize while undergoing change so as to still retain essentially the same function, structure, identity, and feedbacks."<sup>5</sup>

The adaptive management framework is a management framework that is dynamic and adjusts appropriately to a complex and continually changing world.<sup>6,7</sup>

## Results

Pattern of predominantly risk-based approaches to climate change adaptation by NSW local governments

### Factors leading to this dominance of risk based approaches:

- direct intervention of the Australian federal government
- State based regulatory governance influences
- local governments' existing competences in risk management and hazard reduction
- organisational culture

### Critical influences on adaptation decision-making processes:

- leadership
- resources
- values

## Objective

This empirical research seeks to discover whether the existing institutional and cultural environment of local governments in NSW facilitates or impedes effective adaptation.

## Conclusions

Risk-based approaches, which are often localised and site-specific, restrict the suite of adaptive responses that can contribute to enhancing total system resilience.

This, paradoxically, can limit the capacity of socio-ecological systems within the local government jurisdiction, as well as neighbouring systems, to adapt to change, thus leading to maladaptation.

Ameliorating NSW local governments' risk-based approach to adaptation would be complex, due to the factors and influences identified in this research, and because resilience is not a normative concept and does not conform to established principles of government policy.

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## Abbreviations

CC: climate change  
NSW: New South Wales  
WASiP: Waste and Sustainability Improvement Payment Program

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